LONG-TERM GROUNDWATER MONITORING REPORT
NINTH ROUND (March 2007)

BLACKWELL FOREST PRESERVE LANDFILL SITE
DUPAGE COUNTY, ILLINOIS

MWH File No.: 4050581

Prepared For:

Forest Preserve District
DuPage County, Illinois

Prepared By:

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July 2007

MWH

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ACRONYMS AND ABBREVIATIONS

FPD	Forest Preserve District of DuPage County
IEPA	Illinois Environmental Protection Agency
MCLs	Maximum Contaminant Levels
mg/L	milligrams per liter
MWH	MWH Americas, Inc.
ORP	Oxidation-Reduction Potential
QAPP	Quality Assurance Project Plan
QC	Quality Control
RI/FS	Remedial Investigation/Feasibility Study
Site	Blackwell Landfill Site
TCL	Target Compound List
TDS	Total Dissolved Solids
µg/L	Micrograms per liter
U.S. EPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds

1.0 INTRODUCTION

This report documents the results of the ninth round of long-term groundwater monitoring at the Forest Preserve District of DuPage County (FPD) Blackwell Landfill (Site). Nine rounds of groundwater monitoring have been conducted at the Site since March 2001. The Site is located within the Blackwell Forest Preserve in Warrenville, DuPage County, Illinois (Figure 1). General site features are shown in Figure 2.

2.0 SCOPE OF MONITORING PROGRAM

The long-term groundwater monitoring program for the Blackwell site has consisted of nine rounds of groundwater monitoring. The original Monitoring Plan (Montgomery Watson, 2001) consisted of five rounds of groundwater monitoring conducted between March 2001 and March 2004. Following the fifth sampling event, the FPD evaluated the groundwater results and recommended extending the groundwater monitoring program for three additional rounds. As outlined in the *Revised Long-Term Groundwater Monitoring Program Summary Report* (MWH, February 2005), four additional rounds of groundwater monitoring were conducted between March 2005 and March 2007. The table below is a summary of the nine sampling events conducted at the Site to date. In the conclusions and recommendations section of this report, MWH recommends extending the monitoring program.

Long-Term Monitoring Round	Sampling Period
First	March 2001
Second	December 2001
Third	September 2002
Fourth	June 2003
Fifth	March 2004
Sixth	March 2005
Seventh	December 2005
Eighth	September 2006
Ninth	March 2007

The purpose of the monitoring program is to:

- Ensure that contaminant levels in groundwater do not increase to a level that could jeopardize either human health or the environment;
- Evaluate the effectiveness of the treatment/containment components on the landfill;
- Detect changes in the chemical composition of groundwater at and adjacent to the Site; and
- Demonstrate that natural attenuation continues to be an effective remedial strategy for impacted groundwater.

Each monitoring event includes collecting groundwater level measurements, and groundwater sampling and analyses. Twenty-six monitoring wells are included in the monitoring program. The wells can be grouped as follows:

- Detection monitoring wells, located between the landfill and the downgradient Site boundary;
- Compliance monitoring wells, located along the downgradient Site boundary; and
- Other monitoring wells/piezometers for water level measurement only.

The rationale for including these wells in the groundwater monitoring program is discussed in the January 2001 *Revised Long-Term Groundwater Monitoring Program Report.*

The monitoring wells are further grouped into those screened in the upper, glacial outwash aquifer (Figure 3), and those screened in the lower, limestone bedrock aquifer (Figure 4). The 26 wells are listed below in these groupings:

Detection Monitoring Wells

Glacial Outwash Aquifer Wells		Bedrock Wells
G117	G127	G140D
G118S	G129	G128D
G126	G130	

Compliance Monitoring Wells

Glacial Outwash Aquifer Wells		Bedrock Wells	
G122	G147*	G133D	G138

** Monitoring well G147 was installed in March 2001 and sampled for two rounds at the request of the U.S. EPA. G147 will not be sampled again because VOCs were not detected in the first two rounds of collected groundwater samples.*

Water Level Wells

Glacial Outwash Aquifer Wells		Bedrock Wells
P2	G133S	G132D
G107S	G142	G139
G114	G143	G134
G121	G144	G135
G123		G137

Groundwater samples collected from the detection and compliance monitoring wells are analyzed for volatile organic compounds (VOCs) on the Target Compound List (TCL), phenol, and water quality parameters (i.e., chloride, sulfate and total dissolved solids [TDS]).

3.0 SUMMARY OF FIELD ACTIVITIES

3.1 GROUNDWATER SAMPLING

Groundwater samples were collected from the detection and compliance monitoring wells from March 13 through March 15, 2007. The samples were collected in accordance with procedures described in the United States Environmental Protection Agency (U.S. EPA) approved *Revised Pre-Design Investigation Activities Report, Appendix F* (Montgomery Watson, July 1997) and all subsequent and approved addenda. The samples were analyzed and validated in accordance with the *Quality Assurance Project Plan* (QAPP), [Volume IV of the *Pre-Design Investigation Activities Report* (Montgomery Watson, August 1996)]. The sampling sequence and procedures are summarized below:

- Static water levels were measured at each of the detection, compliance, and water level wells (Table 1) on March 13, 2007.

- Water elevations of nearby surface water bodies (i.e., Silver Lake, Pine Lake, Sand Pond, three locations along Spring Brook and one location on the west branch of the DuPage River) were measured (Table 1) by a licensed, professional surveyor on March 13, 2007.

- Groundwater samples were collected at 11 monitoring wells. All monitoring wells were purged with a decontaminated, submersible pump using low-flow methods. Dedicated tubing was used in each well. Wells were purged until field parameters (i.e., pH, specific conductivity, turbidity, dissolved oxygen, temperature, and oxidation-reduction potential [ORP] stabilized [Table 2]).

- All monitoring wells were sampled from the pump discharge following stabilization.

- Quality control (QC) samples (e.g., duplicates, field blanks, and matrix spike/matrix spike duplicates) were collected at frequencies specified in the QAPP.

- Following collection, the samples were placed in coolers and delivered under chain-of-custody to First Environmental Laboratories, Inc. in Naperville, Illinois for analysis.

- Monitoring wells G118S and G127 were resampled in May 2007 and analyzed for VOCs. These samples were collected to confirm the presence of VOCs detected in samples from these wells in March 2007.

3.2 ANALYTICAL RESULTS

The groundwater samples were analyzed for TCL VOCs, phenol, chloride, sulfate and TDS. All samples were analyzed in accordance with the analytical methods and required practical quantitation limits outlined in the QAPP and in QAPP addenda. The laboratory-supplied data package was reviewed and validated by MWH in accordance with the QAPP and U.S. EPA guidance. The validation report has been retained on file at MWH and is available upon request.

The validated analytical results from the March 2007 sampling event are summarized in Table 3. The U.S. EPA's Maximum Contaminant Levels (MCLs) and Illinois Environmental Protection Agency (IEPA) Class I Groundwater Standards (i.e., "regulatory standards") are also listed in Table 3, and exceedences of these standards are in bold print. A summary of detections, groundwater standards, and exceedences of standards is provided in Table 4.

The analytical data in Table 3 indicate that:

- Two VOCs were detected during the ninth round of long-term groundwater monitoring, cis-1,2-dichloroethene and vinyl chloride. Cis-1,2-dichloroethene was detected in groundwater samples collected from detection monitoring wells G117, G118S, G126, and G127 located in the upper outwash aquifer. Cis-1, 2-dichloroethene was also detected in the duplicate sample of G117. The concentrations of the samples collected from G117 were 6.7 micrograms per liter (µg/L); the concentration in samples from G118S, G126, and G127 was 7.0 µg/L, 10.6 µg/L, and 16.8 µg/L, respectively. All of these detections are below the EPA MCL and IEPA Class I standard of 70 µg/L for cis-1,2-dichloroethene. Vinyl chloride was detected in groundwater samples collected from detection monitoring wells G118S and G127 at 3.1 µg/L and 3.6 µg/L, respectively. The detections of vinyl chloride in both samples exceed the EPA MCL and IEPA Class I standard of 2 µg/L for this compound.

- Groundwater samples collected from G118S and G127 in May 2007 confirm the presence of vinyl chloride detected in samples from these wells during March sampling. The results for the confirmation samples are tabulated in Table 3 and the analytical data report is included in Appendix A. These samples are intended only to confirm VOC detections in March samples and are not included in Table 4 or trendline analysis.

- Total dissolved solids were detected in groundwater samples from 9 of the 11 detection and compliance wells at concentrations above the secondary MCL. The maximum detected concentration was 865 milligrams per liter (mg/L) in a sample from outwash detection well G118S. However, the exceedences of TDS were distributed among all four classes of monitoring wells (i.e., shallow detection, deep detection, shallow and deep compliance).

- Phenol was not detected in any samples collected from the monitoring wells sampled during the March 2007 sampling event (ninth round). During the September 2006 sampling event (eighth round) phenol was detected in a sample from G122. Because of its low concentration and previous history of non-detections, it was believed to be a laboratory artifact and not representative of actual groundwater conditions. The current results appear to confirm this statement.

- Consistent with previous sampling events, sulfate was detected in samples from all 11 wells during the ninth round of groundwater monitoring. Chloride was detected in samples from 10 of the 11 wells. All detected concentrations were below the EPA MCLs of 250 mg/L for chloride and 500 mg/L for sulfate. Chloride concentrations ranged from not detected at the quantification limit of 5 mg/L to 120 mg/L, and sulfate concentrations ranged from 73 mg/L to 289 mg/L.

3.3 COMPARISON TO HISTORIC ANALYTICAL RESULTS

MWH reviewed the historic analytical results obtained from detection and compliance monitoring wells during the Remedial Investigation and Feasibility Study (RI/FS) and previous rounds of quarterly groundwater monitoring to assess overall trends in the data and specific changes during the ninth round of long-term monitoring. The reports that summarize these monitoring events are referenced in Section 6.0 of this report. The historic data was collected on the following dates:

- First and second round of the RI, 1991 through 1992;
- One round collected during the FS, 1995;
- Eight rounds collected during the Quarterly Groundwater Monitoring Program, 1997 through 2000;
- Nine rounds have been collected since March 2001 as part of this Long-Term Groundwater Monitoring Program.

Review of historic data and Table 4 indicates an overall trend of decreasing concentration and decreasing total number of detections of the contaminants of concern.

- **The number of VOCs detected in groundwater samples is decreasing with time.** For example, during the first round of the RI in September 1991, a total of seven VOCs were detected in samples from nine monitoring wells. Only two VOCs were detected in samples during the ninth round. Additionally, benzene has not been detected in groundwater during these past nine rounds of groundwater monitoring. The chlorinated organic suite of compounds [tetrachloroethene (PCE), trichloroethene (TCE), cis- and trans-1,2-dichloroethene, and vinyl chloride] are now detected less frequently and at lower concentrations. Trichloroethene and trans-1,2-dichloroethane have not been detected at any of the monitoring wells during the extension of the

monitoring program (nine rounds). The parent compound PCE has been detected only once, during round six, at a low concentration 5.6 µg/L. During this ninth round of long-term groundwater monitoring in March 2007, only two VOCs (i.e., cis-1,2-dichloroethene and vinyl chloride) were detected. Cis-1,2-dichloroethene was detected in samples from four of the six outwash detection wells and vinyl chloride was detected in samples from two detection wells.

- **The concentrations of detected VOCs are also decreasing with time.** The maximum detected concentration of cis-1,2-dichloroethene (total) was 120 µg/L in January during the second round of the RI in 1992. Currently, the maximum detected concentration of cis-1,2-dichloroethene is 16.8 µg/L, detected at G127. The regulatory limit for cis-1,2-dichloroethene is 70 µg/L.

- **The detected concentrations of cis-1,2-dichloroethene and vinyl chloride in the outwash detection wells are decreasing with time.** For presentation purposes, a trendline analyses for the concentrations of cis-1,2-dichloroethene and vinyl chloride in monitoring wells G118S and G127 is shown in Appendix B. The detected concentrations of cis-1,2-dichloroethene continue to represent a consistent decrease in concentration over time as described in the Revised Long-Term Groundwater Monitoring Program.

  Groundwater samples from monitoring well G127 have occasionally included detections of vinyl chloride in previous sampling rounds. Previously, vinyl chloride was detected in samples from G127 during the sixth round of sampling in March 2005. The detected concentration of vinyl chloride was 4.3 µg/L in March 2005 compared to the current concentration of 3.6 µg/L. Vinyl chloride is only sporadically detected in samples from this well.

  Vinyl chloride has not been previously detected in samples collected from G118S over the previous eight rounds of sampling. However, during the first round of the RI in September 1991, vinyl chloride was detected in a sample from this well at 18.0 µg/L, the current concentration detected in this well is 3.1 µg/L. The trendline for vinyl chloride concentrations in samples from G118S and G127 continues to represent a decreased concentration with time, as shown in Drawings 1 and 2 of Appendix B. The detections of vinyl chloride in samples from G118S and G127 are likely due to the biodegradation of cis-1,2-dichloroethene. During reductive dechlorination, cis-1,2-dichloroethene degrades to vinyl chloride.

- **Historically, the concentrations of TDS have generally exceeded their Secondary MCLs.** Exceedance of a secondary MCL does not indicate that there is a health risk. Secondary MCLs are a measure of aesthetic water quality.

- **Chloride concentrations have shown an increasing trend over the past nine groundwater monitoring events.** The trend of increasing chloride concentrations is likely due to the biodegradation of chlorinated ethenes. During the reductive dechlorination of these compounds, chloride is released as a byproduct of the breakdown.

3.4 GROUNDWATER LEVEL MEASUREMENTS

Surface and groundwater elevations were measured prior to groundwater sample collection on March 13, 2007. The measured water levels and elevations are summarized in Table 1.

3.4.1 Upper Aquifer - Glacial Outwash

A plot of the water table for the upper glacial outwash aquifer is presented in Figure 5. The approximate northern boundary of the glacial aquifer is within the southwest portion of the landfill. The direction of groundwater flow in the glacial aquifer is to the south-southwest. Groundwater flow and the relationship of surface water elevations to groundwater elevations are consistent with the groundwater flows defined in previous monitoring reports.

3.4.2 Lower Aquifer - Bedrock

The potentiometric surface for the lower aquifer is presented in Figure 6. The direction of groundwater flow is to the southwest toward the West Branch of the DuPage River. The flow direction is consistent with the groundwater flow identified in previous monitoring reports.

4.0 SUMMARY

Water level measurements collected in March 2007 indicate that the groundwater flow regime is similar to that shown by historical data. Groundwater in the upper aquifer near the landfill flows to the south and southwest towards the West Branch of the DuPage River. Groundwater flow in the lower aquifer is to the southwest, also toward the West Branch of the DuPage River.

Seven upper aquifer wells and four lower aquifer wells were sampled in March 2007. The results of laboratory analysis are consistent with past monitoring results, and continue to show a trend of a decreasing number of VOC analytes and decreasing VOC concentrations. During the March 2007 monitoring event, groundwater samples from four monitoring wells in the outwash aquifer contained low levels of cis-1,2-dichloroethene at concentrations below U.S. EPA MCLs and IEPA Class I Groundwater Standards. One VOC, vinyl chloride, was detected in samples from outwash aquifer detection wells G118S and G127 above the U.S. EPA MCLs and IEPA Class I Groundwater Standards for this compound. Vinyl chloride has been detected at G118S in the past and occasionally at G127. The vinyl chloride detections are below historic concentrations in these wells and the concentration trendline for this compound is decreasing with time.

The concentrations of TDS detected during the ninth round of long-term groundwater monitoring are consistent with previous sampling events, and continue to exceed U.S. EPA Secondary MCLs. Exceedance of a secondary MCL does not indicate that there is a health risk, but is rather a measure of aesthetic water quality (i.e. taste).

5.0 CONCLUSIONS AND RECOMMENDATIONS

After the original five rounds of groundwater sampling were completed in 2004, the FPD voluntarily extended the long-term monitoring for an additional three sampling events. The purpose of the extension was to evaluate the following four goals:

- Ensure that contaminant levels in groundwater do not increase to a level that could jeopardize either human health or the environment;
- Evaluate the effectiveness of the treatment/containment components on the landfill;
- Detect changes in the chemical composition of groundwater at and adjacent to the Site; and
- Demonstrate that natural attenuation continues to be an effective remedial strategy for impacted groundwater.

After evaluating the past nine rounds (the original five plus four extended events) of groundwater monitoring at the site, the following conclusions can be made for each of the goals listed above.

- The monitoring program confirms contaminant levels in groundwater are following a decreasing trend. Concentrations of one VOC, cis-1,2-dichlorethene, are detected in the outwash aquifer but at very low concentrations, below regulatory limits. No contaminants have been detected in the bedrock aquifer wells over the past nine rounds of monitoring.

- Monitoring data at detection and compliance wells in the outwash and bedrock aquifers indicate the treatment/containment components of the landfill are effective at preventing release of contaminants to groundwater. No "breakouts" of monitored target compounds have been observed.

- The monitoring program has been able to detect chemical changes in the composition of groundwater adjacent to the Site. Concentrations of chloride are slightly increasing due to the reductive chlorination of chlorinated ethenes. Chloride levels and sulfate levels are, nevertheless, consistently below regulatory limits.

- The monitoring data indicates that natural attenuation has been effective in reducing contaminant concentrations in groundwater. Cis-1,2-dichloroethane remains the most commonly detected compound in groundwater and is primarily detected at two monitoring wells, G118S and G127, within the outwash aquifer close to the landfill. The concentrations of this compound have not exceeded regulatory limits. The concentrations of vinyl chloride detected in these two wells during March 2007 are believed to be the result of breakdown of cis-1,2-dichlorethene.

There is strong and consistent evidence that the combined remedy, which included landfill containment/treatment systems and natural attenuation in groundwater, are protective of human health and environment.

MWH recommends two additional rounds of groundwater monitoring on an annual basis; conducted in the spring of each year for the next two years, when infiltration potential is highest for the landfill and so a release of a compound would be most likely.

6.0 REFERENCES

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TABLES

Table 1
Summary of Groundwater Level Measurements (March 2007)
Blackwell Landfill, DuPage County, Illinois

Deep Monitoring Wells (Bedrock)

Well Designation	Depth to Water (feet)	TOIC Elevation (feet)	Groundwater Elevation (feet)	Notes
G128D	13.53	707.41	693.88	Detection Well
G133D	14.23	708.10	693.87	Compliance Well
G138	14.85	708.69	693.84	Compliance Well
G140D	11.66	705.71	694.05	Detection Well

Shallow Monitoring Wells (Glacial Outwash)

Well Designation	Depth to Water (feet)	TOIC Elevation (feet)	Groundwater Elevation (feet)	Notes
G117	12.54	707.44	694.90	Detection Well
G118S	14.83	711.33	696.50	Detection Well
G122	12.39	706.52	694.13	Compliance Well
G126	10.40	704.50	694.10	Detection Well
G127	11.88	706.66	694.78	Detection Well
G129	7.10	702.86	695.76	Detection Well
G130	13.87	710.40	696.53	Detection Well
G147	11.45	704.72	693.27	Compliance Well

Water Level Wells

Well Designation	Depth to Water (feet)	TOIC Elevation (feet)	Groundwater Elevation (feet)	Notes
P2	6.03	699.18	693.15	Glacial Outwash Aquifer Well
G107S	13.36	708.60	695.24	Glacial Outwash Aquifer Well
G114	13.93	709.40	695.47	Glacial Outwash Aquifer Well
G121	9.75	703.71	693.96	Glacial Outwash Aquifer Well
G123	12.81	707.77	694.96	Glacial Outwash Aquifer Well
G133S	13.60	708.04	694.44	Glacial Outwash Aquifer Well
G142	14.05	709.17	695.12	Glacial Outwash Aquifer Well
G143	11.21	706.56	695.35	Glacial Outwash Aquifer Well
G144	4.91	701.88	696.97	Glacial Outwash Aquifer Well
G132D	25.04	725.99	700.95	Bedrock Well
G134	26.93	727.20	700.27	Bedrock Well
G135	24.77	721.07	696.30	Bedrock Well
G137	8.22	701.89	693.67	Bedrock Well
G139	8.16	702.22	694.06	Bedrock Well

Surface Water

Measurement Location	Surface Water Elevation (feet)
Silver Lake	706.76
Pool West of Silver Lake	705.29
Sand Pond	693.86
Pine Lake	693.70
Spring Brook - No. 2	701.59
Spring Brook - No. 3	695.42
DuPage River	691.27

Notes:

Surface water levels were measured on March 13, 2007.
Groundwater levels were measured on March 13, 2007.
All depth and elevation measurements in units of feet.
TOIC = Top of inner casing

Table 2
Summary of Field Parameters[1] (March 2007)
Blackwell Landfill, DuPage County, Illinois

Deep Monitoring Wells (Bedrock)

Well Number	Type of Well	pH	Specific Conductivity (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Oxidation - Reduction Potential (mV)
G128D	Detection	7.19	0.094	22.7	1.06	11.8	-30
G133D	Compliance	7.41	9.9	3.95	0.00	10.6	109
G138	Compliance	8.39	2.6	-1.70	0.00	10.3	1
G140D	Detection	7.05	0.114	-1.43	6.08	11.0	85

Shallow Monitoring Wells (Glacial Outwash)

Well Number	Type of Well	pH	Specific Conductivity (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Oxidation - Reduction Potential (mV)
G117	Detection	7.14	0.102	1.25	2.61	12.3	12
G118S	Detection	6.47	0.154	1.35	2.05	9.7	150
G122	Compliance	7.52	9.9	-3.84	0.00	11.6	76
G126	Detection	6.98	0.133	2.09	8.28	10.9	60
G127	Detection	6.68	0.165	22.9	0.81	10.5	-21
G129	Detection	9.21	0.27	152	0.00	6.5	-89
G130	Detection	6.84	0.159	1.88	1.14	10.7	178

Notes

(1) Stabilized field parameters.

°C - Degrees Celsius

mg/L - Milligrams per liter

S/m - Siemens per meter

NTU - Nephelometric turbidity units

mV - Millivolts

Table 3
Validated Analytical Results
Round 9, Long-Term Groundwater Monitoring Program
Blackwell Landfill, DuPage County, Illinois

Sample Name / Sample Date / Parameter	EPA MCLs	IEPA Class I Standards	Units	BW-GW-G117-17 03/14/07 Conc	LQ/DVQ	PQL	BW-GW-G917-17 03/14/07 Conc	LQ/DVQ	PQL	BW-GW-G118S-17 03/14/07 Conc	LQ/DVQ	PQL	BW-GW-G118S-17RE[1] 05/30/07 Conc	LQ/DVQ	PQL	BW-GW-G122-17 03/15/07 Conc	LQ/DVQ	PQL	BW-GW-G922-17 03/15/07 Conc	LQ/DVQ	PQL	BW-GW-G126-17 03/14/07 Conc	LQ/DVQ	PQL
VOC																								
Acetone		700*	ug/L		U/	100		U/	100		U/	100		U/	100		U/	100		U/	100		U/	100
Benzene	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Bromodichloromethane	100/80 (THM)	0.02a	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Bromoform	100/80 (THM)	0.2a	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Bromomethane (Methyl bromide)		9.8*	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
2-Butanone (MEK)			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Carbon disulfide		700*	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Carbon tetrachloride	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Chlorobenzene (Monochlorobenzene)	100	100	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Chlorodibromomethane	100/80 (THM)	140*	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Chloroethane			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Chloroform	100/80 (THM)	0.02a	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Chloromethane			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0
1,1-Dichloroethane		700*	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,2-Dichloroethane	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,1-Dichloroethene	7	7	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
cis-1,2-Dichloroethene	70	70	ug/L	6.7	/	5.0	6.7	/	5.0	7.0	/	5.0	7.8	/	5.0		U/	5.0		U/	5.0	10.6	/	5.0
trans-1,2-Dichloroethene	100	100	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,2-Dichloropropane	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
cis-1,3-Dichloropropene		1a (cis + trans)	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0
trans-1,3-Dichloropropene			ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Ethyl benzene	700	700	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
2-Hexanone (MBK)			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Methyl-tert-butylether (MTBE)			ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
4-Methyl-2-pentanone (MIBK)			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Methylene chloride	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Styrene	100	100	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,1,2,2-Tetrachloroethane			ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Tetrachloroethene	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Toluene	1000	1000	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,1,1-Trichloroethane	200	200	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,1,2-Trichloroethane	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Trichloroethene	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Vinyl Acetate		7000*	ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Vinyl Chloride	2	2	ug/L		U/	2.0		U/	2.0	**3.1**	/	2.0	**4.4**	/	2.0		U/	2.0		U/	2.0		U/	2.0
m & p-Xylene			ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
o-Xylene			ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
SVOC																								
Phenol		100	mg/L		U/	0.01		U/	0.01		U/	0.01		NA			U/	0.01		U/	0.01		U/	0.01
INORGANIC																								
Cyanide			mg/L		NA			NA			NA			NA			NA			NA			NA	
Chloride	250**	200	mg/L	74	/	5	74	/	5		U/	5		NA		78	/	5	76	/	5	120	/	5
Sulfate	500	400	mg/L	80	/	15	81	/	15	289	/	15		NA		92	/	15	87	/	15	84	/	15
Total Dissolved Solids	500**	1200	mg/L	463	/	10	464	/	10	**865**	/	10		NA		**552**	/	10	**556**	/	10	**608**	/	10

Table 3
Validated Analytical Results
Round 9, Long-Term Groundwater Monitoring Program
Blackwell Landfill, DuPage County, Illinois

Sample Name / Sample Date / Parameter	EPA MCLs	IEPA Class I Standards	Units	BW-GW-G127-17 03/14/07 Conc	LQ/DVQ	PQL	BW-GW-G127-17RE[1] 05/30/07 Conc	LQ/DVQ	PQL	BW-GW-G128D-17 03/14/07 Conc	LQ/DVQ	PQL	BW-GW-G129-17 03/15/07 Conc	LQ/DVQ	PQL	BW-GW-G130-17 03/13/07 Conc	LQ/DVQ	PQL	BW-GW-G133D-17 03/15/07 Conc	LQ/DVQ	PQL	BW-GW-G138-17 03/15/07 Conc	LQ/DVQ	PQL
VOC																								
Acetone		700*	ug/L		U/	100		U/	100		U/	100		U/	100		U/	100		U/	100		U/	100
Benzene	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Bromodichloromethane	100/80 (THM)	0.02a	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Bromoform	100/80 (THM)	0.2a	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Bromomethane (Methyl bromide)		9.8*	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
2-Butanone (MEK)			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Carbon disulfide		700*	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Carbon tetrachloride	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Chlorobenzene (Monochlorobenzene)	100	100	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Chlorodibromomethane	100/80 (THM)	140*	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Chloroethane			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Chloroform	100/80 (THM)	0.02a	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Chloromethane			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0
1,1-Dichloroethane		700*	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,2-Dichloroethane	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,1-Dichloroethene	7	7	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
cis-1,2-Dichloroethene	70	70	ug/L	16.8	/	5.0	21.4	/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
trans-1,2-Dichloroethene	100	100	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,2-Dichloropropane	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
cis-1,3-Dichloropropene		1a (cis + trans)	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0
trans-1,3-Dichloropropene			ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Ethyl benzene	700	700	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
2-Hexanone (MBK)			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Methyl-tert-butylether (MTBE)			ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
4-Methyl-2-pentanone (MIBK)			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Methylene chloride	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Styrene	100	100	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,1,2,2-Tetrachloroethane			ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Tetrachloroethene	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Toluene	1000	1000	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,1,1-Trichloroethane	200	200	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,1,2-Trichloroethane	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Trichloroethene	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Vinyl Acetate		7000*	ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Vinyl Chloride	2	2	ug/L	**3.6**	/	2.0	**4.3**	/	2.0		U/	2.0		U/	2.0		U/	2.0		U/	2.0		U/	2.0
m & p-Xylene			ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
o-Xylene			ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0		U/	5.0
SVOC																								
Phenol		100	mg/L		U/	0.01		NA			U/	0.01		U/	0.01		U/	0.01		U/	0.01		U/	0.01
INORGANIC																								
Cyanide			mg/L		NA			NA			NA			NA			NA			NA			NA	
Chloride	250**	200	mg/L	85	/	5		NA		62	/	5	100	/	5	100	/	5	90	/	5	94	/	5
Sulfate	500	400	mg/L	167	/	15		NA		73	/	15	255	/	15	146	/	15	98	/	15	89	/	15
Total Dissolved Solids	500**	1200	mg/L	**724**	/	10		NA		437	/	10	**717**	/	10	**763**	/	10	**571**	/	10	**528**	/	10

Table 3
Validated Analytical Results
Round 9, Long-Term Groundwater Monitoring Program
Blackwell Landfill, DuPage County, Illinois

Sample Name / Sample Date / Parameter	EPA MCLs	IEPA Class I Standards	Units	BW-GW-G140D-17 03/14/07 Conc	LQ/DVQ	PQL	BW-GW-FB01-17 03/14/07 Conc	LQ/DVQ	PQL	BW-GW-FB02-17 03/15/07 Conc	LQ/DVQ	PQL	BW-GW-TB01-17 03/13/07 Conc	LQ/DVQ	PQL
VOC															
Acetone		700*	ug/L		U/	100		U/	100		U/	100		U/	100
Benzene	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Bromodichloromethane	100/80 (THM)	0.02a	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Bromoform	100/80 (THM)	0.2a	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Bromomethane (Methyl bromide)		9.8*	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
2-Butanone (MEK)			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Carbon disulfide		700*	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Carbon tetrachloride	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Chlorobenzene (Monochlorobenzene)	100	100	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Chlorodibromomethane	100/80 (THM)	140*	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Chloroethane			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Chloroform	100/80 (THM)	0.02a	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Chloromethane			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0
1,1-Dichloroethane		700*	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,2-Dichloroethane	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,1-Dichloroethene	7	7	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
cis-1,2-Dichloroethene	70	70	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
trans-1,2-Dichloroethene	100	100	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,2-Dichloropropane	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
cis-1,3-Dichloropropene		1a (cis + trans)	ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0
trans-1,3-Dichloropropene			ug/L		U/	1.0		U/	1.0		U/	1.0		U/	1.0
Ethyl benzene	700	700	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
2-Hexanone (MBK)			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Methyl-tert-butylether (MTBE)			ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
4-Methyl-2-pentanone (MIBK)			ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Methylene chloride	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Styrene	100	100	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,1,2,2-Tetrachloroethane			ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Tetrachloroethene	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Toluene	1000	1000	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,1,1-Trichloroethane	200	200	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
1,1,2-Trichloroethane	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Trichloroethene	5	5	ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
Vinyl Acetate		7000*	ug/L		U/	10.0		U/	10.0		U/	10.0		U/	10.0
Vinyl Chloride	2	2	ug/L		U/	2.0		U/	2.0		U/	2.0		U/	2.0
m & p-Xylene			ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
o-Xylene			ug/L		U/	5.0		U/	5.0		U/	5.0		U/	5.0
SVOC															
Phenol		100	mg/L		U/	0.01		U/	0.01		U/	0.01	NA		
INORGANIC															
Cyanide			mg/L		NA			NA			NA		NA		
Chloride	250**	200	mg/L	110	/	5		U/	5		U/	5	NA		
Sulfate	500	400	mg/L	92	/	15		U/	15		U/	15	NA		
Total Dissolved Solids	500**	1200	mg/L	**591**	/	10		U/	10		U/	10	NA		

Notes
Conc = concentration
LQ/DVQ = Lab Qualifiers/Data Validation Qualifiers
PQL = Practical Quantitation Limit
* not listed as standard in 620.410:
** Secondary MCLs:
a - Health Advisory Conc. equal to Acceptable Detection Limit (ADL) for carcinogens
THM - Total for all THMs cannot exceed the 80ug/L level
NA - Not Analyzed
[1] - Confirmation VOC samples were collected from G118S and G127 in May 2007
Bold = Exceeds MCLs

Sample Label Identifiers:
FB - field blank
GW - groundwater
G107 - well identification
TB - trip blank
-17 - sample
-922 - duplicate sample

Qualifier Definitions:
U/ - Not detected

/U - Not
J/ - Estir
/UJ - No
/J - Estir
/R - Unu
S/ - Ana
*/ - Dup
B/ - Det
B/ - Alsc
N/ - Mat

JM/JEF/app
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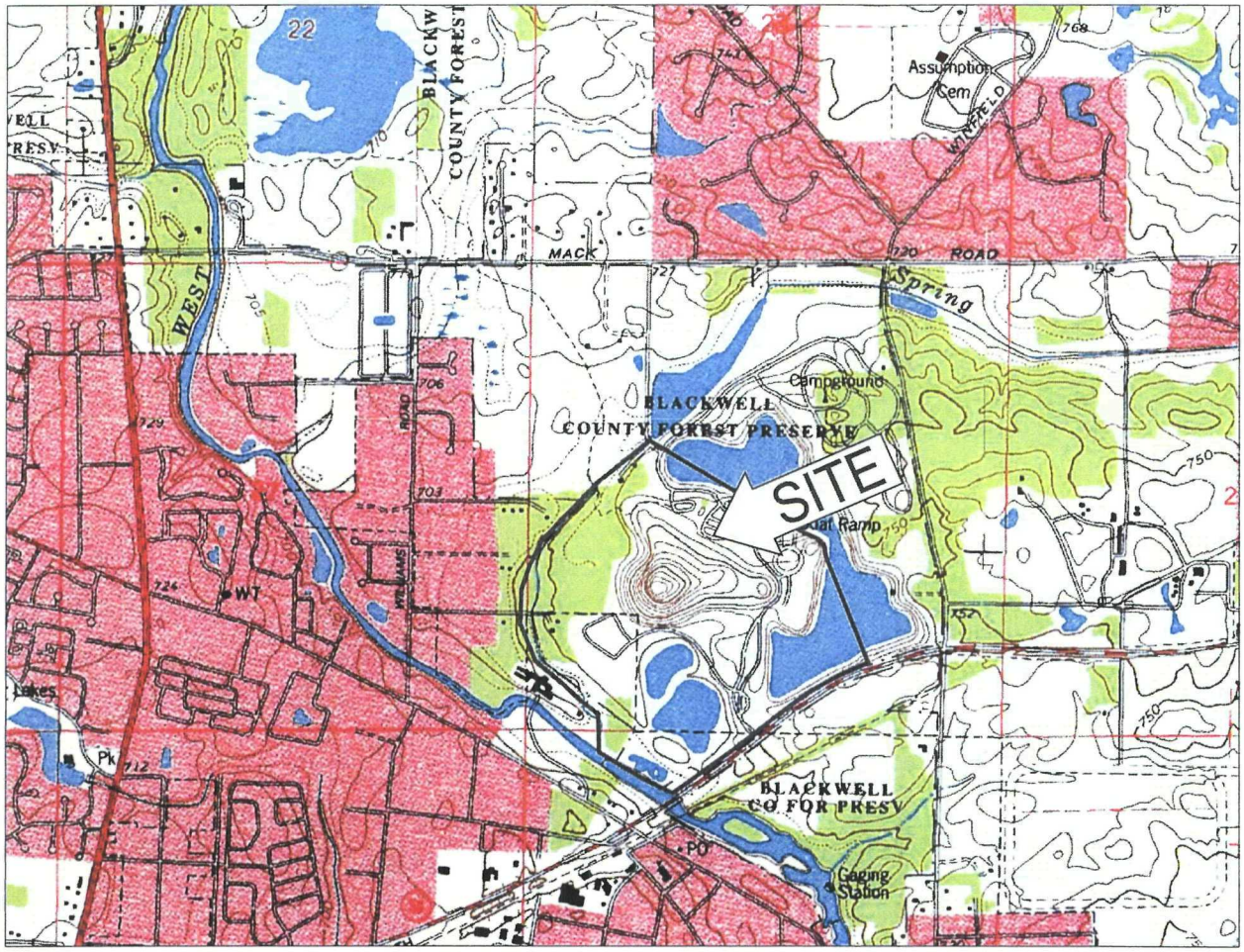
Table 4
Summary of Detections in Monitoring Wells
Round 9, Long-Term Groundwater Monitoring Program
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	Outwash Detection	Outwash Detection Range		Bedrock Detection	Bedrock Detection Range		Outwash Compliance	Outwash Compliance Range		Bedrock Compliance	Bedrock Compliance Range	
				Detections	Min	Max	Detections	Min	Max	Detections	Min	Max	Detections	Min	Max
VOC															
cis-1,2-Dichloroethene	70	70	ug/L	4 / 6	ND	16.8	0 / 2	ND	ND	0 / 1	ND	ND	0 / 2	ND	ND
Vinyl Chloride	2	2	ug/L	2 / 6	ND	3.6	0 / 2	ND	ND	0 / 1	ND	ND	0 / 2	ND	ND
SVOC															
Phenol		100	mg/L	0 / 6	ND	ND	0 / 2	ND	ND	0 / 1	ND	ND	0 / 2	ND	ND
INORGANIC															
Chloride	250**	200	mg/L	5 / 6	ND	120	2 / 2	62	110	1 / 1	78	78	2 / 2	90	94
Sulfate	500	400	mg/L	6 / 6	80	289	2 / 2	73	92	1 / 1	92	92	2 / 2	89	98
Total Dissolved Solids	500**	1200	mg/L	6 / 6	463	**865**	2 / 2	437	**591**	1 / 1	**552**	**552**	2 / 2	**528**	**571**

Notes:

Bold = Exceeds MCLs
** = Secondary MCLs
ND = No Detections
ug/L = microgram per Liter
mg/L = milligram per Liter
VOC = volatile organic compound
SVOC = semi-volatile organic compound

FIGURES



N

2000

SCALE IN FEET

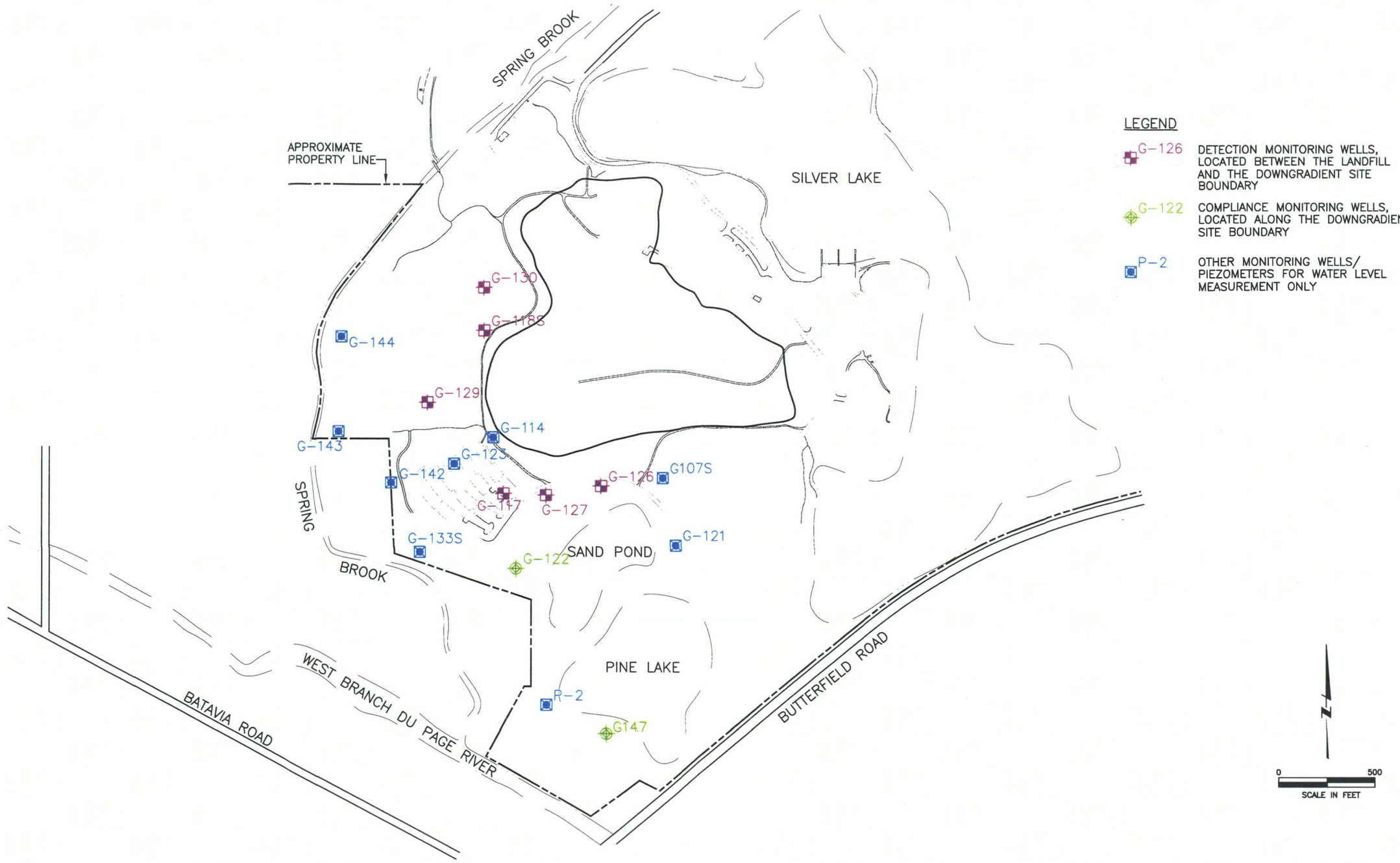
BASE MAP DEVELOPED FROM THE
NAPERVILLE, ILLINOIS 7.5 MINUTE
U.S.G.S. TOPOGRAPHIC QUADRANGLE MAP
DATED: 1993

MWH	BLACKWELL LANDFILL NPL SITE DUPAGE COUNTY, ILLINOIS	SITE LOCATION MAP	FIGURE 1

J:\209\0045 Blackwell\Drawings\2090045_site_loc_map.dwg Jun 01, 2005 - 9:50am

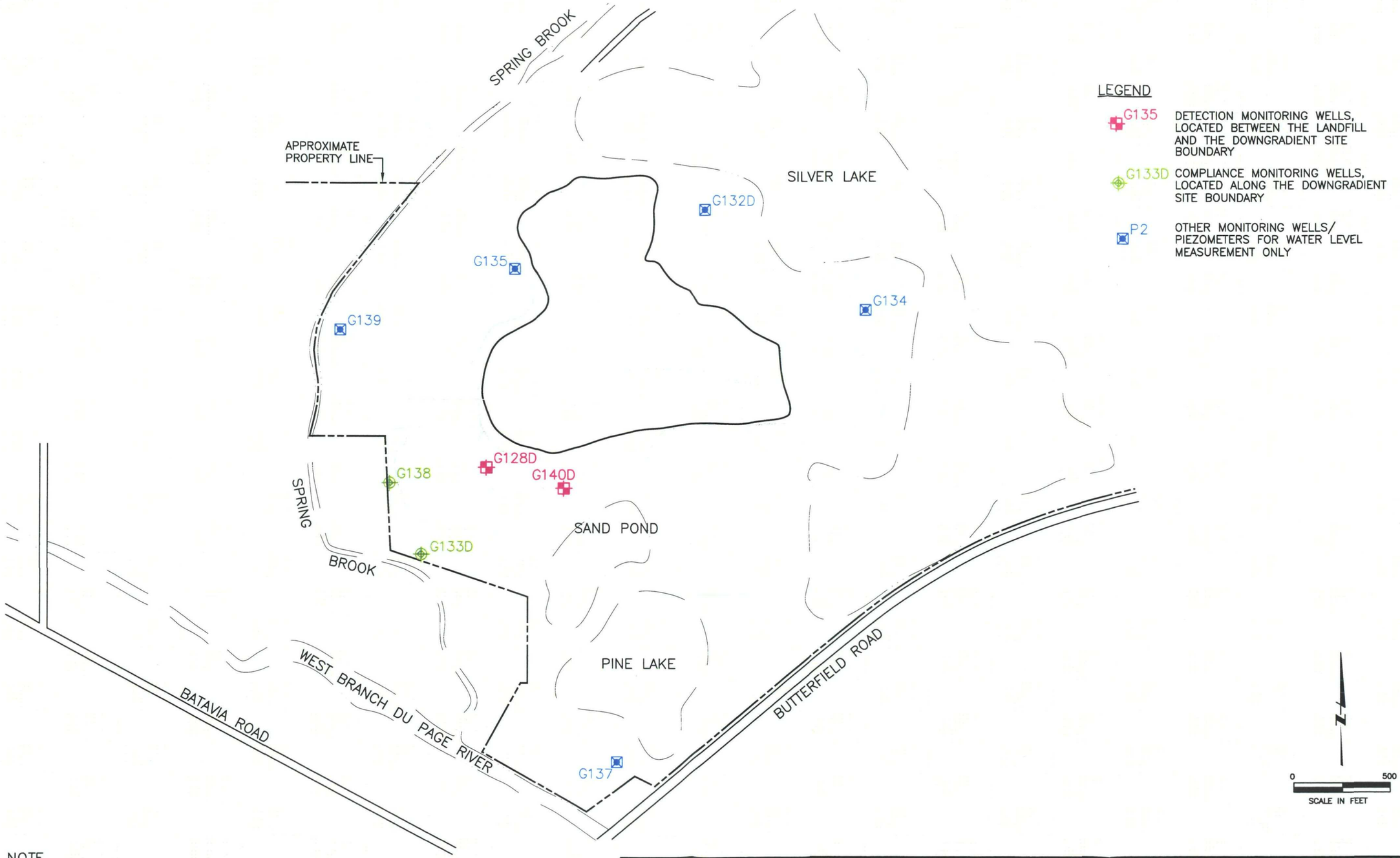
MWH	BLACKWELL LANDFILL NPL SITE DU PAGE COUNTY, ILLINOIS	SITE FEATURES MAP	FIGURE 2

J:\1252\008\mwdwgs\00801c98f.dwg Mar 29, 2006 – 3:08pm



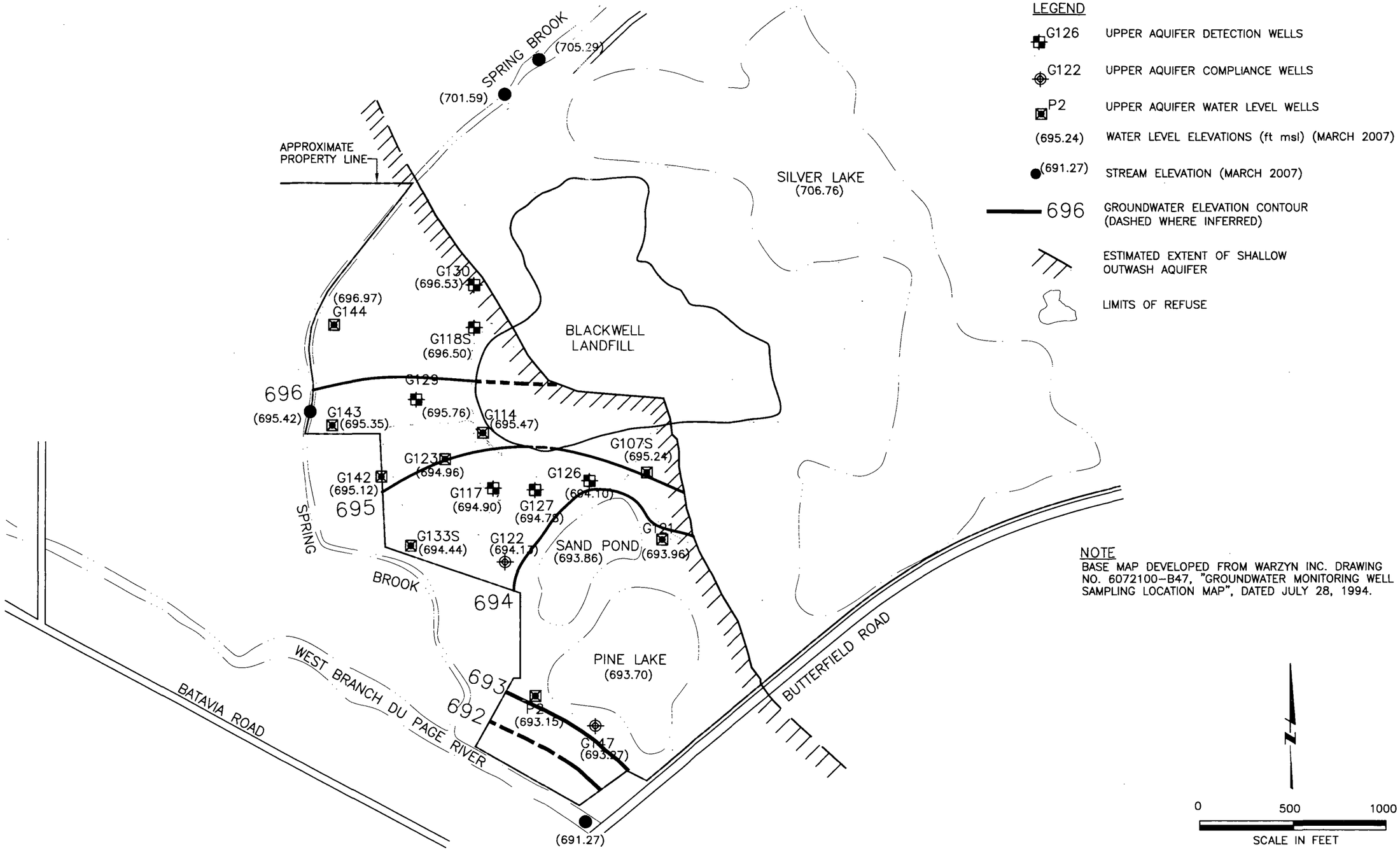
NOTE
BASE MAP DEVELOPED FROM WARZYN INC. DRAWING NO. 6072100-B47, "GROUNDWATER MONITORING WELL SAMPLING LOCATION MAP", DATED JULY 28, 1994.

MWH	BLACKWELL LANDFILL NPL SITE DU PAGE COUNTY, ILLINOIS	UPPER AQUIFER WELL AND PIEZOMETER LOCATIONS	FIGURE 3



NOTE
BASE MAP DEVELOPED FROM WARZYN INC. DRAWING NO. 6072100-B47, "GROUNDWATER MONITORING WELL SAMPLING LOCATION MAP", DATED JULY 28, 1994.

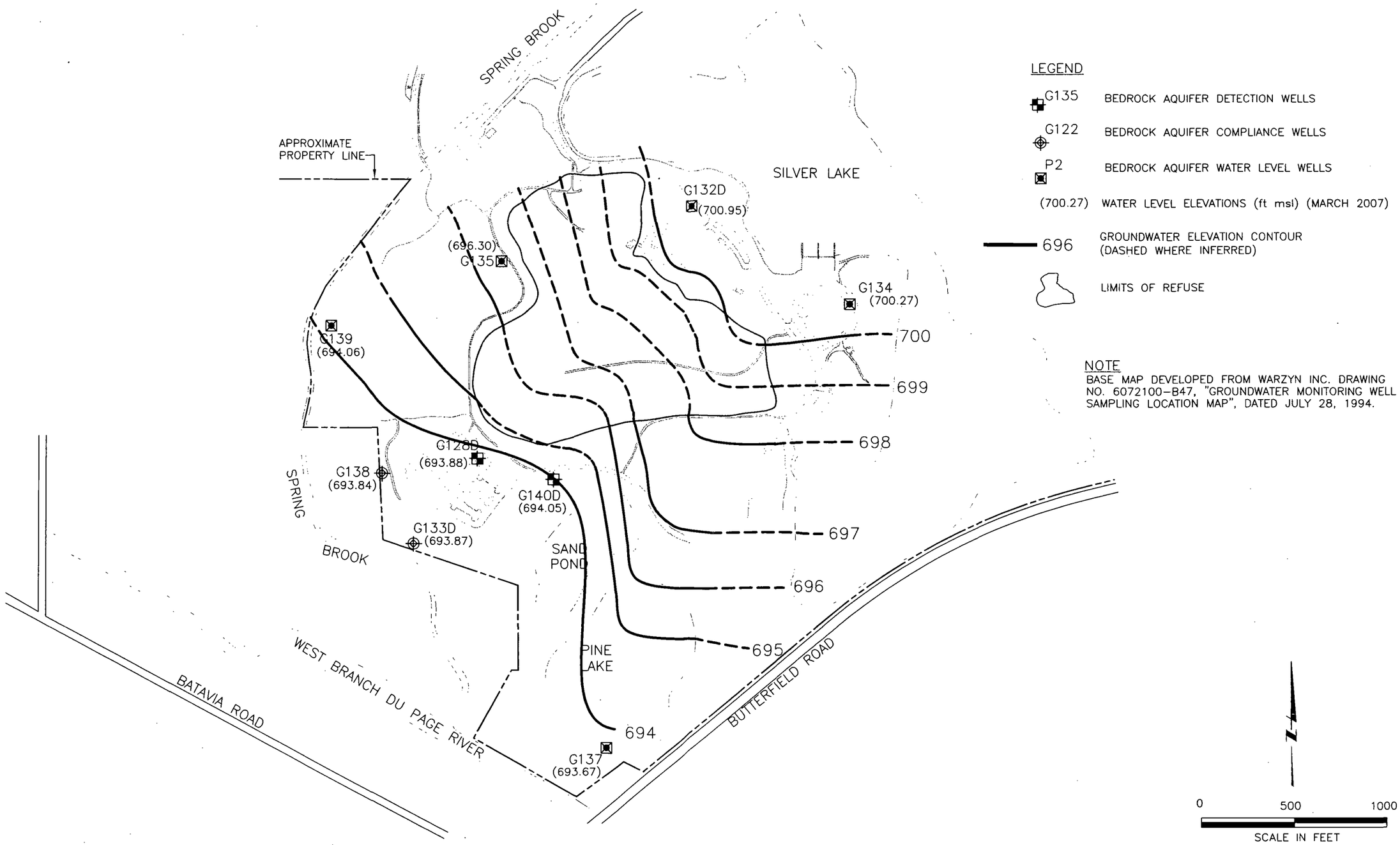
MWH	BLACKWELL LANDFILL NPL SITE DU PAGE COUNTY, ILLINOIS	BEDROCK AQUIFER WELL LOCATIONS	FIGURE 4



NOTE
BASE MAP DEVELOPED FROM WARZYN INC. DRAWING NO. 6072100-B47, "GROUNDWATER MONITORING WELL SAMPLING LOCATION MAP", DATED JULY 28, 1994.

SCALE			FIGURE
AS SHOWN	MWH	BLACKWELL LANDFILL NPL SITE DUPAGE COUNTY, ILLINOIS	UPPER AQUIFER WATER TABLE MAP (MARCH 2007)	5

J:\jobs\405\0581 Blackwell\Drawings\March 2007 GW Report\March07_Fig5.dwg Apr 27, 2007 - 9:16am



SCALE			FIGURE
AS SHOWN	MWH	BLACKWELL LANDFILL NPL SITE DUPAGE COUNTY, ILLINOIS	LOWER AQUIFER POTENTIOMETRIC SURFACE MAP (MARCH 2007)	6

J:\jobs\405\0581 Blackwell\Drawings\March 2007 GW Report\March07_Fig6.dwg May 01, 2007 - 1:37pm

APPENDIX A

LABORATORY ANALYTICAL RESULTS

First Environmental Laboratories, Inc.
IL ELAP / NELAC Accreditation # 100292
1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

March 23, 2007

Mr. David Powers
MONTGOMERY WATSON HARZA
175 West Jackson Boulevard,
Suite 1900
Chicago, IL 60604

Project ID: Blackwell Groundwater; 4050581.08160101
First Environmental File ID: 7-1020
Date Received: March 15, 2007

Dear Mr. David Powers:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All analyses were performed in accordance with established methods and within established holding times. All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 001695: effective 02/26/07 through 02/28/08.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

William Mottashed
Project Manager

First Environmental Laboratories, Inc.
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Case Narrative

MONTGOMERY WATSON HARZA

Project ID: **Blackwell Groundwater; 4050581.08160101**

First Environmental File ID: **7-1020**

Date Received: **March 15, 2007**

Flag	Description	Flag	Description
<	Analyte not detected at or above the reporting limit.	L+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	L-	LCS recovery outside control limits; low bias.
C	Identification confirmed by GC/MS.	M	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	M+	MS recovery outside control limits high bias; LCS acceptable.
E	Estimated result; concentration exceeds calibration range.	M-	MS recovery outside control limits low bias; LCS acceptable.
F	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	P	Chemical preservation pH adjusted in lab.
H	Analysis holding time exceeded.	Q	The analyte was determined by a GC/MS database search.
J	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis.
K	RPD outside control limits.	T	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	W	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Sample acceptance criteria were met.

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-TB01-17
Sample No: 7-1020-001

Date Collected: 03/13/07
Time Collected: 13:45
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 03/22/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G130-17
Sample No: 7-1020-002
Date Collected: 03/13/07
Time Collected: 14:55
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 03/22/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G130-17
Sample No: 7-1020-002
Date Collected: 03/13/07
Time Collected: 14:55
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols	**Method: 420.4R1.0**			
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride	**Method: 4500Cl, C**			
Analysis Date: 03/20/07				
Chloride	100	5	mg/L	
Sulfate	**Method: 375.2R2.0**			
Analysis Date: 03/22/07				
Sulfate	146	15	mg/L	
Total Dissolved Solids	**Method: 2540C**			
Analysis Date: 03/16/07				
Total Dissolved Solids	763	10	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G118S-17
Sample No: 7-1020-003
Date Collected: 03/14/07
Time Collected: 9:00
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds Analysis Date: 03/22/07	**Method: 5030B/8260B**			
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	7.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	3.1	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	03/14/07
Project ID:	Blackwell Groundwater; 4050581.08160101	**Time Collected:**	9:00
Sample ID:	BW-GW-G118S-17	**Date Received:**	03/15/07
Sample No:	7-1020-003	**Date Reported:**	03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols **Method: 420.4R1.0**				
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride **Method: 325.2**				
Analysis Date: 03/19/07				
Chloride	< 5	5	mg/L	
Sulfate **Method: 375.2R2.0**				
Analysis Date: 03/22/07				
Sulfate	289	15	mg/L	
Total Dissolved Solids **Method: 2540C**				
Analysis Date: 03/16/07				
Total Dissolved Solids	865	10	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G117-17
Sample No: 7-1020-004
Date Collected: 03/14/07
Time Collected: 10:20
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 03/22/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	6.7	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G117-17
Sample No: 7-1020-004

Date Collected: 03/14/07
Time Collected: 10:20
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols **Method: 420.4R1.0**				
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride **Method: 325.2**				
Analysis Date: 03/19/07				
Chloride	74	5	mg/L	
Sulfate **Method: 375.2R2.0**				
Analysis Date: 03/22/07				
Sulfate	80	15	mg/L	
Total Dissolved Solids **Method: 2540C**				
Analysis Date: 03/16/07				
Total Dissolved Solids	463	10	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G128D-17
Sample No: 7-1020-005
Date Collected: 03/14/07
Time Collected: 11:35
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 03/22/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G128D-17
Sample No: 7-1020-005
Date Collected: 03/14/07
Time Collected: 11:35
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols ***Method: 420.4R1.0***				
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride **Method: 325.2**				
Analysis Date: 03/19/07				
Chloride	62	5	mg/L	
Sulfate **Method: 375.2R2.0**				
Analysis Date: 03/22/07				
Sulfate	73	15	mg/L	
Total Dissolved Solids **Method: 2540C**				
Analysis Date: 03/16/07				
Total Dissolved Solids	437	10	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G917-17
Sample No: 7-1020-006
Date Collected: 03/14/07
Time Collected: 11:35
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 03/22/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	6.7	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G917-17
Sample No: 7-1020-006
Date Collected: 03/14/07
Time Collected: 11:35
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols **Method: 420.4R1.0**				
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride **Method: 325.2**				
Analysis Date: 03/19/07				
Chloride	74	5	mg/L	
Sulfate **Method: 375.2R2.0**				
Analysis Date: 03/22/07				
Sulfate	81	15	mg/L	
Total Dissolved Solids **Method: 2540C**				
Analysis Date: 03/16/07				
Total Dissolved Solids	464	10	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G127-17
Sample No: 7-1020-007
Date Collected: 03/14/07
Time Collected: 13:40
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 03/22/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	16.8	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	3.6	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G127-17
Sample No: 7-1020-007

Date Collected: 03/14/07
Time Collected: 13:40
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols	**Method: 420.4R1.0**			
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride	**Method: 325.2**			
Analysis Date: 03/19/07				
Chloride	85	5	mg/L	
Sulfate	**Method: 375.2R2.0**			
Analysis Date: 03/22/07				
Sulfate	167	15	mg/L	
Total Dissolved Solids	**Method: 2540C**			
Analysis Date: 03/16/07				
Total Dissolved Solids	724	10	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G140D-17
Sample No: 7-1020-008
Date Collected: 03/14/07
Time Collected: 15:35
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 03/23/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G140D-17
Sample No: 7-1020-008

Date Collected: 03/14/07
Time Collected: 15:35
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols **Method: 420.4R1.0**				
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride **Method: 4500Cl, C**				
Analysis Date: 03/20/07				
Chloride	110	5	mg/L	
Sulfate **Method: 375.2R2.0**				
Analysis Date: 03/22/07				
Sulfate	92	15	mg/L	
Total Dissolved Solids **Method: 2540C**				
Analysis Date: 03/16/07				
Total Dissolved Solids	591	10	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G126-17
Sample No: 7-1020-009
Date Collected: 03/14/07
Time Collected: 16:40
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 03/23/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	10.6	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G126-17
Sample No: 7-1020-009

Date Collected: 03/14/07
Time Collected: 16:40
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols **Method: 420.4R1.0**				
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride **Method: 4500Cl, C**				
Analysis Date: 03/20/07				
Chloride	120	5	mg/L	
Sulfate **Method: 375.2R2.0**				
Analysis Date: 03/22/07				
Sulfate	84	15	mg/L	
Total Dissolved Solids **Method: 2540C**				
Analysis Date: 03/16/07				
Total Dissolved Solids	608	10	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-FB01-17
Sample No: 7-1020-010

Date Collected: 03/14/07
Time Collected: 17:05
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 03/23/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-FB01-17
Sample No: 7-1020-010

Date Collected: 03/14/07
Time Collected: 17:05
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols	**Method: 420.4R1.0**			
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride	**Method: 325.2**			
Analysis Date: 03/19/07				
Chloride	< 5	5	mg/L	
Sulfate	**Method: 375.2R2.0**			
Analysis Date: 03/22/07				
Sulfate	< 15	15	mg/L	
Total Dissolved Solids	**Method: 2540C**			
Analysis Date: 03/20/07				
Total Dissolved Solids	< 10	10	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G129-17
Sample No: 7-1020-011

Date Collected: 03/15/07
Time Collected: 9:00
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds	**Method: 5030B/8260B**			
Analysis Date: 03/23/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G129-17
Sample No: 7-1020-011

Date Collected: 03/15/07
Time Collected: 9:00
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols **Method: 420.4R1.0**				
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride **Method: 4500Cl, C**				
Analysis Date: 03/20/07				
Chloride	100	5	mg/L	
Sulfate **Method: 375.2R2.0**				
Analysis Date: 03/22/07				
Sulfate	255	15	mg/L	
Total Dissolved Solids **Method: 2540C**				
Analysis Date: 03/20/07				
Total Dissolved Solids	717	10	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G122-17
Sample No: 7-1020-012
Date Collected: 03/15/07
Time Collected: 10:05
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds	**Method: 5030B/8260B**			
Analysis Date: 03/23/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G122-17
Sample No: 7-1020-012
Date Collected: 03/15/07
Time Collected: 10:05
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols **Method: 420.4R1.0**				
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride **Method: 325.2**				
Analysis Date: 03/19/07				
Chloride	78	5	mg/L	
Sulfate **Method: 375.2R2.0**				
Analysis Date: 03/22/07				
Sulfate	92	15	mg/L	
Total Dissolved Solids **Method: 2540C**				
Analysis Date: 03/20/07				
Total Dissolved Solids	552	10	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G922-17
Sample No: 7-1020-013
Date Collected: 03/15/07
Time Collected: 10:00
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds Analysis Date: 03/23/07	**Method: 5030B/8260B**			
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G922-17
Sample No: 7-1020-013
Date Collected: 03/15/07
Time Collected: 10:00
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols **Method: 420.4R1.0**				
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride **Method: 325.2**				
Analysis Date: 03/19/07				
Chloride	76	5	mg/L	
Sulfate **Method: 375.2R2.0**				
Analysis Date: 03/22/07				
Sulfate	87	15	mg/L	
Total Dissolved Solids **Method: 2540C**				
Analysis Date: 03/20/07				
Total Dissolved Solids	556	10	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G133D-17
Sample No: 7-1020-014

Date Collected: 03/15/07
Time Collected: 11:05
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 03/23/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G133D-17
Sample No: 7-1020-014

Date Collected: 03/15/07
Time Collected: 11:05
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols **Method: 420.4R1.0**				
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride **Method: 4500Cl, C**				
Analysis Date: 03/20/07				
Chloride	90	5	mg/L	
Sulfate **Method: 375.2R2.0**				
Analysis Date: 03/22/07				
Sulfate	98	15	mg/L	
Total Dissolved Solids **Method: 2540C**				
Analysis Date: 03/20/07				
Total Dissolved Solids	571	10	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G138-17
Sample No: 7-1020-015

Date Collected: 03/15/07
Time Collected: 12:10
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 03/23/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-G138-17
Sample No: 7-1020-015

Date Collected: 03/15/07
Time Collected: 12:10
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols	**Method: 420.4R1.0**			
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride	**Method: 325.2**			
Analysis Date: 03/19/07				
Chloride	94	5	mg/L	
Sulfate	**Method: 375.2R2.0**			
Analysis Date: 03/22/07				
Sulfate	89	15	mg/L	
Total Dissolved Solids	**Method: 2540C**			
Analysis Date: 03/20/07				
Total Dissolved Solids	528	10	mg/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-FB02-17
Sample No: 7-1020-016
Date Collected: 03/15/07
Time Collected: 0:00
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5030B/8260B**				
Analysis Date: 03/22/07				
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell Groundwater; 4050581.08160101
Sample ID: BW-GW-FB02-17
Sample No: 7-1020-016
Date Collected: 03/15/07
Time Collected: 0:00
Date Received: 03/15/07
Date Reported: 03/23/07

TDS was filtered in laboratory.

Analyte	Result	R.L.	Units	Flags
Phenols	**Method: 420.4R1.0**			
Analysis Date: 03/16/07				
Phenols	< 0.01	0.01	mg/L	
Chloride	**Method: 4500Cl, C**			
Analysis Date: 03/19/07				
Chloride	< 5	5	mg/L	
Sulfate	**Method: 375.2R2.0**			
Analysis Date: 03/22/07				
Sulfate	< 15	15	mg/L	
Total Dissolved Solids	**Method: 2540C**			
Analysis Date: 03/20/07				
Total Dissolved Solids	< 10	10	mg/L	

CHAIN OF CUSTODY RECORD

First Environmental Laboratories, Inc.

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IEPA Certification# 100292

Company Name: MWH

Street Address: 175 W. JACKSON BLVD SUITE #1900

City: CHICAGO State: IL Zip: 60604

Phone: 312.831.3432 Fax: 312.831.3421 e-mail: david.p.powers@mwhglobal.com

Send Report To: DAVID POWERS Via: Fax ☐ e-mail ☒

Sampled By: DAVID POWERS / JUSTIN FINKEN

Project I.D.: BLACKWELL GROUNDWATER

P.O. #: 4050581.08160101

Matrix Codes: S = Soil W = Water O = Other

Analyses

Date/Time Taken	Sample Description	Matrix	VOCs	Chloride / Sulfate	TDS	Phenols					Comments	Lab I.D.
3/13/07 1400	BW-GW-TB01-17	GW	X	~~X~~	~~X~~						VOC only - T.D.7	0220-001
3/13/07 1455	BW-GW-G130-17	GW	X	X	X							002
3/14/07 0900	BW-GW-G118S-17	GW	X	X	X							003
3/14/07 1020	BW-GW-G117-17	GW	X	X	X							004
3/14/07 1135	BW-GW-G128D-17	GW	X	X	X						MS/MSD	005
3/14/07 1200	BW-GW-G917-17	GW	X	X	X							006
3/14/07 1340	BW-GW-G127-17	GW	X	X	X							007
3/14/07 1535	BW-GW-G140D-17	GW	X	X	X							008
3/14/07 1640	BW-GW-G126-17	GW	X	X	X							009
3/14/07 1705	BW-GW-FB01-17	GW	X	X	X						FIELD BLANK	010
3/15/07 0900	BW-GW-G129-17	GW	X	X	X							011
3/15/07 1005	BW-GW-G122-17	GW	X	X	X							012

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6°C Yes No ____°C
Received within 6 hrs. of collection: ____
Ice Present: Yes No

Sample Refrigerated: Yes No
Refrigerator Temperature: ____°C
5035 Vials Frozen: Yes No
Freezer Temperature: ____°C

Containers Received Preserved: ☑ Yes ☐ No

Notes and Special Instructions: TDS NOT FIELD FILTERED - PLEASE FILTER IN LABORATORY

Relinquished By: David Powers Date/Time 3/15/07 1345 Received By: [signature] Date/Time 3/15/07 1345

Relinquished By: ____ Date/Time ____ Received By: ____ Date/Time ____

Rev. 4/06

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24 Hr. Pager (708) 569-7507
E-mail: info@firstenv.com
IEPA Certification# 100292

Company Name: SEE PAGE 1

Street Address:

City: State: Zip:

Phone: Fax: e-mail:

Send Report To: Via: Fax ☐ e-mail ☐

Sampled By:

Project I.D.: BLACKWELL GROUNDWATER

P.O. #: 4050581. 08160101

Matrix Codes: S = Soil W = Water O = Other

Analyses

Date/Time Taken	Sample Description	Matrix	VOCs	Chloride/TDS/Sulfate	Phenols						Comments	Lab I.D.
3/15/07 1000	BW-GW-G922-17	GW	X	X	X							7-10330-013
3/15/07 1105	BW-GW-G133D-17	GW	X	X	X							014
3/15/07 1210	BW-GW-G138-17	GW	X	X	X							015
3/15/07	BW-GW-FB02-17	GW	X	X	X							016

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6°C Yes No ____ °C
Received within 6 hrs. of collection: ____
Ice Present: Yes No

Sample Refrigerated: Yes No
Refrigerator Temperature: ____ °C
5035 Vials Frozen: Yes No
Freezer Temperature: ____ °C

Containers Received Preserved: ☑ Yes ☐ No

Notes and Special Instructions: TDS NOT FIELD FILTERED - PLEASE LABORATORY FILTER

Relinquished By: [signature] Date/Time 3/15/07 1745 (3 DP) Received By: [signature] Date/Time 3/15/07 1745

Relinquished By: Date/Time Received By: Date/Time

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June 04, 2007

Mr. Justin Finger
MONTGOMERY WATSON HARZA
175 West Jackson Boulevard,
Suite 1900
Chicago, IL 60604

Project ID: Blackwell PO# 4050581.07160101
First Environmental File ID: 7-2392
Date Received: May 30, 2007

Dear Mr. Justin Finger:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All analyses were performed in accordance with established methods and within established holding times. All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 001728: effective 04/13/07 through 02/28/08.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Lorrie Franklin

Lorrie Franklin
Project Manager

First Environmental Laboratories, Inc.

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Case Narrative

MONTGOMERY WATSON HARZA

Project ID: **Blackwell PO# 4050581.07160101**

First Environmental File ID: **7-2392**

Date Received: **May 30, 2007**

Flag	Description	Flag	Description
<	Analyte not detected at or above the reporting limit.	L+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	L-	LCS recovery outside control limits; low bias.
C	Identification confirmed by GC/MS.	M	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	M+	MS recovery outside control limits high bias; LCS acceptable.
E	Estimated result; concentration exceeds calibration range.	M-	MS recovery outside control limits low bias; LCS acceptable.
F	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	P	Chemical preservation pH adjusted in lab.
H	Analysis holding time exceeded.	Q	The analyte was determined by a GC/MS database search.
J	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis.
K	RPD outside control limits.	T	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	W	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Sample acceptance criteria were met.

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Analytical Report

Client:	MONTGOMERY WATSON HARZA	**Date Collected:**	05/30/07
Project ID:	Blackwell PO# 4050581.07160101	**Time Collected:**	9:00
Sample ID:	BW-GW-TB01-17RE	**Date Received:**	05/30/07
Sample No:	7-2392-001	**Date Reported:**	06/04/07

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds	**Method: 5030B/8260B**	**Analysis Date:**	**06/01/07**	
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell PO# 4050581.07160101
Sample ID: BW-GW-G127-17RE
Sample No: 7-2392-002

Date Collected: 05/30/07
Time Collected: 10:40
Date Received: 05/30/07
Date Reported: 06/04/07

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds	**Method: 5030B/8260B**	**Analysis Date:**	**06/01/07**	
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	21.4	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	4.3	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell PO# 4050581.07160101
Sample ID: BW-GW-G927-17RE
Sample No: 7-2392-003

Date Collected: 05/30/07
Time Collected: 10:40
Date Received: 05/30/07
Date Reported: 06/04/07

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds	**Method: 5030B/8260B**	**Analysis Date:**	**06/01/07**	
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	22.2	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	3.9	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell PO# 4050581.07160101
Sample ID: BW-GW-G118S-17RE
Sample No: 7-2392-004

Date Collected: 05/30/07
Time Collected: 12:20
Date Received: 05/30/07
Date Reported: 06/04/07

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds	**Method: 5030B/8260B**	**Analysis Date:**	**06/01/07**	
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	7.8	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	4.4	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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Analytical Report

Client: MONTGOMERY WATSON HARZA
Project ID: Blackwell PO# 4050581.07160101
Sample ID: BW-GW-FB01-17RE
Sample No: 7-2392-005

Date Collected: 05/30/07
Time Collected: 13:05
Date Received: 05/30/07
Date Reported: 06/04/07

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds	**Method: 5030B/8260B**	**Analysis Date:**		**06/01/07**
Acetone	< 100	100	ug/L	
Benzene	< 5.0	5.0	ug/L	
Bromodichloromethane	< 1.0	1.0	ug/L	
Bromoform	< 1.0	1.0	ug/L	
Bromomethane	< 5.0	5.0	ug/L	
2-Butanone (MEK)	< 10.0	10.0	ug/L	
Carbon disulfide	< 5.0	5.0	ug/L	
Carbon tetrachloride	< 5.0	5.0	ug/L	
Chlorobenzene	< 5.0	5.0	ug/L	
Chlorodibromomethane	< 1.0	1.0	ug/L	
Chloroethane	< 10.0	10.0	ug/L	
Chloroform	< 1.0	1.0	ug/L	
Chloromethane	< 10.0	10.0	ug/L	
1,1-Dichloroethane	< 5.0	5.0	ug/L	
1,2-Dichloroethane	< 5.0	5.0	ug/L	
1,1-Dichloroethene	< 5.0	5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	
1,2-Dichloropropane	< 5.0	5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	1.0	ug/L	
Ethylbenzene	< 5.0	5.0	ug/L	
2-Hexanone	< 10.0	10.0	ug/L	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/L	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/L	
Methylene chloride	< 5.0	5.0	ug/L	
Styrene	< 5.0	5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/L	
Tetrachloroethene	< 5.0	5.0	ug/L	
Toluene	< 5.0	5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	5.0	ug/L	
Trichloroethene	< 5.0	5.0	ug/L	
Vinyl acetate	< 10.0	10.0	ug/L	
Vinyl chloride	< 2.0	2.0	ug/L	
Xylene, Total	< 5.0	5.0	ug/L	

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E-mail: info@firstenv.com
IEPA Certification# 100292

Company Name: MWH

Street Address: 175 W. JACKSON BLVD SUITE 1900

City: CHICAGO State: IL Zip: 60604

Phone: (312) 831-3000 Fax: (312) 831-3021 e-mail: JUSTIN.B.FINGER@MWHGLOBAL.COM

Send Report To: JUSTIN FINGER Via: Fax ☐ e-mail ☒

Sampled By: J. FINGER / A. BUTLER

Project I.D.: BLACKWELL

P.O. #: 4050581. 0716 0101

Matrix Codes: S = Soil W = Water O = Other

Date/Time Taken	Sample Description	Matrix	Analyses: VOCs	Comments	Lab I.D.
5/30/07 0900	BW-GW-TB01-17RE	GW	X	7-2392-	001
5/30/07 1040	BW-GW-G127-17RE	GW	X		002
5/30/07 1040	BW-GW-G927-17RE	GW	X		003
5/30/07 1220	BW-GW-G1185-17RE	GW	X		004
5/30/07 1305	BW-GW-FB01-17RE	GW	X		005

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6°C Yes ✓ No__ 4.6 °C
Received within 6 hrs. of collection:_____
Ice Present: Yes ✓ No__

Sample Refrigerated: Yes__ No__
Refrigerator Temperature:_____°C
5035 Vials Frozen: Yes__ No__
Freezer Temperature:_____°C

Containers Received Preserved: ☒ Yes ☐ No

Notes and Special Instructions: _____

Relinquished By: _____ Date/Time 5/30/07 1330 Received By: _____ Date/Time 5/30/07 1330

Relinquished By: _____ Date/Time _____ Received By: _____ Date/Time _____

Rev. 1/06

APPENDIX B

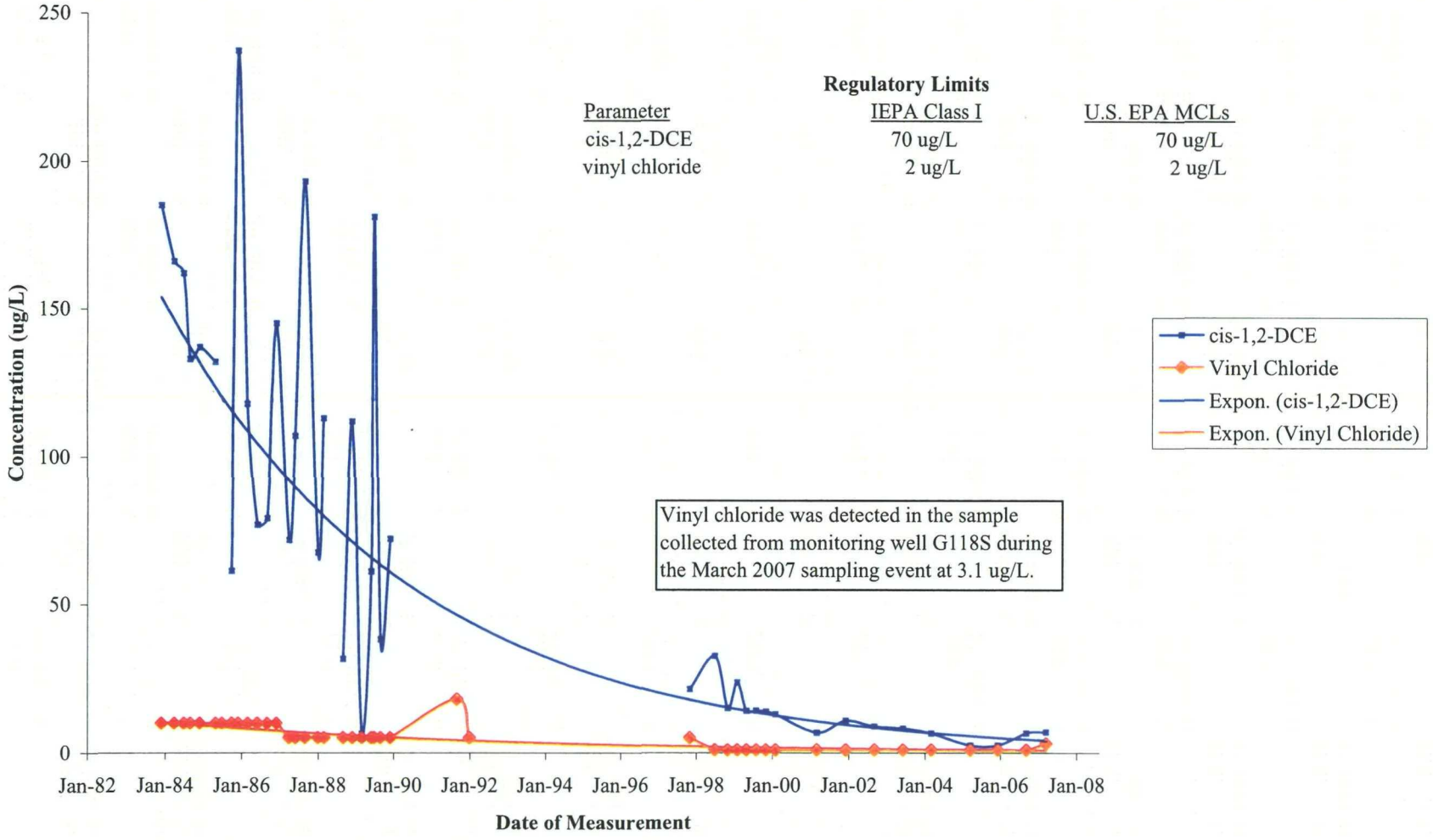
TREND LINE ANALYSIS

VOC Trend Analysis
Drawings 1 and 2
Outliers and Modified Trend Line Presentation

Data points on the Trend Analysis Drawings are considered outliers when the concentrations are considerably lower than prior or subsequent dates, and when the concentrations fell below the calculated trend line. An example of this type of outlier is a non-detect, presented as one-half the detection limit, which is preceded and followed by a detection of relatively high concentration. An evaluation of the data set that produced Drawings 1 and 2 indicates that the majority of outliers fit this category.

For presentational purposes the trend lines contained in the following Trend Analysis Drawings were produced using an exponential curve format. The resulting exponential trend lines accurately represent the decline of contaminant concentrations from December 1983 to March 2007.

Drawing 1
VOC Trend Analysis - G118S



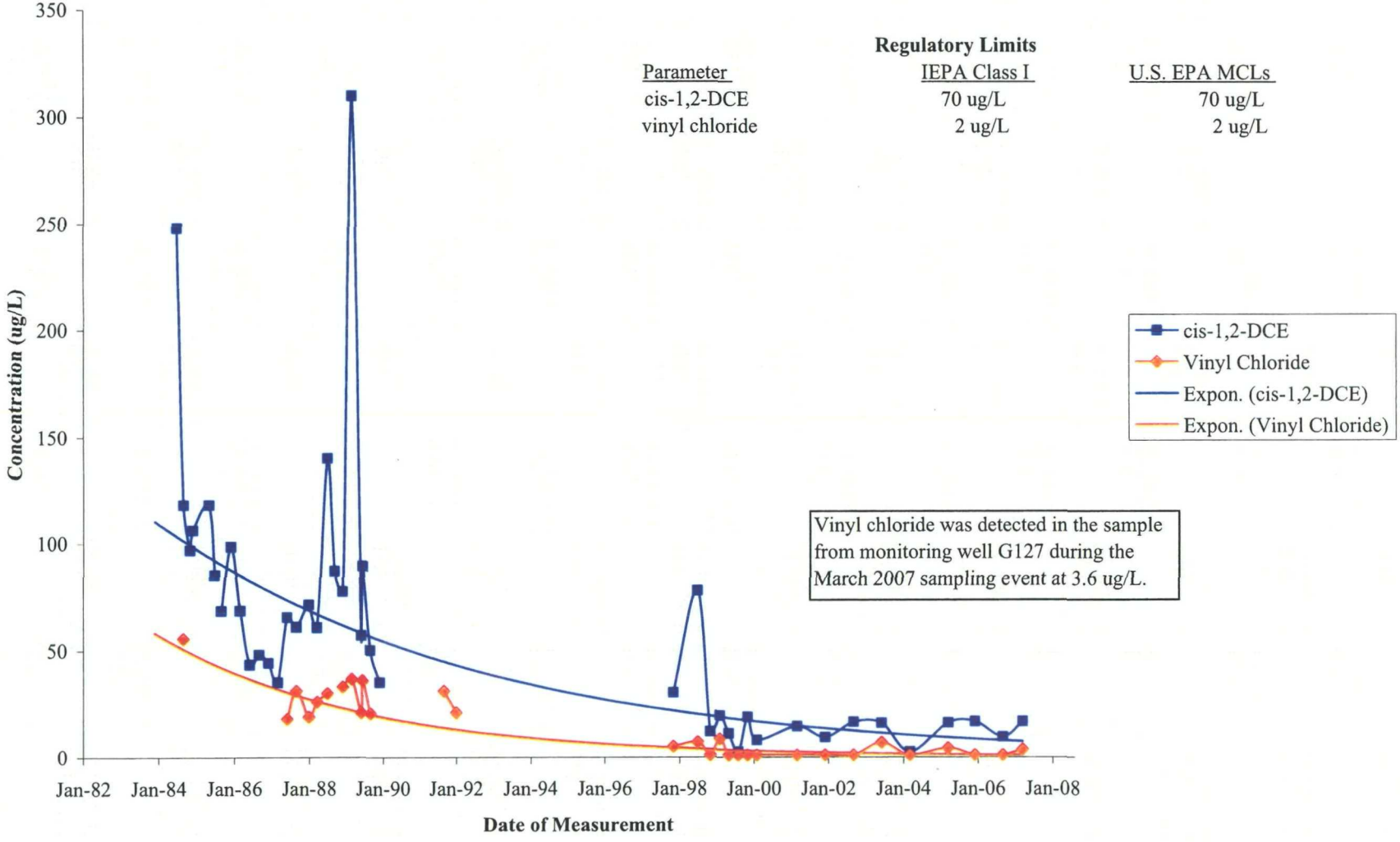
Regulatory Limits

Parameter	IEPA Class I	U.S. EPA MCLs
cis-1,2-DCE	70 ug/L	70 ug/L
vinyl chloride	2 ug/L	2 ug/L

Vinyl chloride was detected in the sample collected from monitoring well G118S during the March 2007 sampling event at 3.1 ug/L.

DPP/jef
J:\405\0581 Blackwell\March 07 Groundwater\Appendix B\Appendix B_Drawings.xls\Drawing 1

Drawing 2
VOC Trend Analysis - G127



DPP/jef
J:\405\0581 Blackwell\March 07 Groundwater\Appendix B\Appendix B_Drawings.xls\Drawing 2